



# United States Department of the Interior

TAKE  
PRIDE IN  
AMERICA

0001

BUREAU OF LAND MANAGEMENT  
Beaver River Resource Area  
365 South Main Street  
Cedar City, Utah 84720  
(801) 586-2458

3809  
UT-044

January 12, 1994

Wayne Hedberg  
Department of Natural Resources  
Division of Oil, Gas and Mining  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

RECEIVED

JAN 14 1994

Dear Mr. Hedberg:

DIVISION OF  
OIL, GAS & MINING

Please find enclosed a copy of the approval letter corresponding to Plan of Operation number UTU-71131 submitted by Geneva Steel. Your reference number is M/021/008.

Also please find enclosed our estimated reclamation cost for disturbance proposed on public land. It is our understanding that you are preparing a bond calculation for the entire Comstock/Mt. Lion operation. We are only allowed to require \$2,000 per acre for reclamation bonds. We would request that the proposed disturbance on public land be incorporated into your reclamation bond for the operation as a whole. Please contact Gina Pack at this office if you have questions regarding the approval or reclamation estimate.

Sincerely,

*Arthur L. Tait*  
Arthur L. Tait  
Area Manager

Enclosures(2)

1. Approval letter for UTU-71131
2. Reclamation cost estimate

0001





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UTU-71131

JAN 14 1994

January 12, 1994

Jerry Grover  
Geneva Steel  
P.O. Box 20-B  
Santaquin, UT 84655

DIVISION OF  
OIL, GAS & MINING

M/021/008

Dear Mr. Grover:

This letter approves the Plan of Operations submitted by your company for the proposed waste rock pile adjacent to your Comstock/Mt. Lion mine located in Iron County, Utah. The plan has been reviewed for compliance with regulations found in 43 CFR 3809 and was analyzed in an environmental assessment report. The report indicated that none of the affected resources would be significantly impacted by the proposed action. Approval of the plan is subject to the attached Reclamation Standards. The plan has been given file number UTU-71131. Please use this number in all future correspondence with this office.

Also find enclosed a copy of the reclamation cost estimate which has been submitted to the Utah Division of Oil, Gas and Mining (DOGM). The BLM may only bond up to \$2,000 per acre. Reclamation of disturbed public land will be covered by the bond required by DOGM.

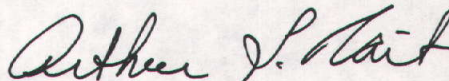
The operations described in your plan are the only actions considered approved by the Bureau of Land Management. Any changes must be submitted to this office as a proposed modification. Operations will be inspected twice a year or every 6 months to insure compliance with the plan and federal and state regulations.

Approval of this plan will not now, or in the future serve as a determination of the ownership or validity of any mining claim to which it may relate.



Thank you for submitting your Plan of Operation as it shows your willingness to prevent unnecessary disturbance of our public lands. If you have questions regarding this approval please contact Gina Pack at this office.

Sincerely,

A handwritten signature in cursive script, reading "Arthur L. Tait".

Arthur L. Tait  
Area Manager

Enclosures(2)

1. Reclamation Standards
2. Reclamation Cost Estimate

cc: Wayne Hedberg, DOGM - M/021/008



1. At the earliest feasible time, the operator will reclaim the area disturbed, except to the extent necessary to preserve evidence of mineralization and roads needed for continuing mineral exploration. Reclamation will include reasonable measures to prevent or control onsite and offsite damage of public lands.
2. Reclamation will include but not be limited to:
  - a. Saving topsoil (top 3 to 6 inches) for final application after reshaping of disturbed areas.
  - b. Controlling erosion, landslides, and water runoff.
  - c. Isolating, removing, or controlling toxic materials.
  - d. Reshaping disturbed areas, applying topsoil, and revegetating where reasonably practicable.
  - e. Controlling noxious weeds invading the site.
  - f. Rehabilitating fisheries and wildlife habitat.
3. Access roads, unless otherwise approved by the authorized officer, will be closed by reshaping the disturbed area to near original contours, scarifying where compaction prevents seed covering, and revegetating with the mixture specified. Waterbars will be placed on steep inclines and access blocked to future vehicular traffic.
4. Soils will be stabilized when needed with straw mulch or other products approved of by the authorized officer.
5. Seeding of disturbed areas will be done between September 1 and December 15. Seed should not be placed on top of deep snow. Seedbeds will be prepared to a depth of 6 inches by ripping, discing, or harrowing. Seed will be planted with a rangeland or farm drill or broadcast seeded. If broadcast seeded, the seed will be harrowed or raked 1/4 to 1/2 inch into the soil. The seed amount will be doubled if the area is broadcast seeded.
6. All hazardous tailing dumps, materials or substances produced by the operation will be disposed of in accordance with applicable Federal and State laws. All waste, debris, buildings, and materials will be removed from the site and deposited at appropriate waste facilities.
7. The authorized officer will be notified within 10 days of final reclamation.



M/021/008

BLM RECLAMATION COST ESTIMATE

GENEVA STEEL PLAN OF OPERATIONS  
UTU-71132/

TOTAL COST ESTIMATE

This estimate is based on reclamation of public land only. It is assuming recontouring of two waste dumps totaling 41.01 acres from approximately a 34 to 23 degree slope, ripping and recontouring of 0.6 acres of haul road, spreading topsoil over the recontoured areas and revegetating.

Recontouring Waste Dumps & Haul Road:

Assume: 237,866 cubic yards (Geneva estimate):  
237,866 cy x 1 hr/435 cy = 547 hours  
547 hrs x 183.41 \$/hr = \$100,325.27

Hauling Top Soil From Ant Pile to Waste Dumps:

Assume: 28,949 cubic yards (Geneva estimate):  
28,949 cy x 1hr/171 cy = 169 hours  
169 hours x 236.95 \$/hr = 40,044.55

Spreading Top Soil:

Assume: 28,949 cubic yards  
28,949 cy x 1hr/350 cy = 83 hours  
83 hours x 183.41 \$/hr = 15,223.03

Rip Haul Road:

Assume: 0.6 acres at \$295/acre = 177.00

Drill and Seed Waste Dumps and Road:

Assume: Seed mix at \$100/acre for 41.61 acres = 4,161.00  
Drill at \$25/hr for 40 hours = 1,000.00  
50% reseed = 2,580.50

Mobilization:

Assume: \$60/hr x 4 hrs x 3 equip. = 720.00

RECLAMATION SUB-TOTAL

164,231.35

Additional Costs:

Administrative Fee - 18% = 29,561.64  
Supervision at \$15/hr for 160 hours = 2,400.00  
Contingency - 10% = 16,423.14  
SUB-TOTAL 1993 DOLLARS = 212,616.13

Escalation for 5 years at 1.42% = 3,019.15

TOTAL IN 1998 DOLLARS = 215,635.28



# RECLAMATION COST ESTIMATE

GENEVA STEEL PLANT OF OPERATION  
UTU-71132

Hauling (General format and info. derived from DOGM)

## ASSUME:

- Caterpillar 627E Wheel Tractor-Scraper, 330-225hp, push-pull
- Info from CAT Performance Handbook, edition 21, section 8
- Operating weight = 77,513 lbs
- Rated Load = 48,000 lb
- Material Weight = 2550 lb/cy
- Cy/load:  $(48,000 \text{ lb} \times 1 \text{ cy}/2550 \text{ lb}) = 18.8 \text{ cy}$
- Gross Weight:  $(77,513 + 48,000) = 125,513 \text{ lbs}$
- Job Efficiency: 50 min/hr, factor=0.83; 20lb/US ton=1% adverse grade
- Rolling resistance: 80 lb/ton = 4% effective grade
- Total resistance = rolling resistance + grade
- Grade of route: 6%

- 
- Effective grade: Uphill - 10%
  - Downhill - 2%
  - Rimpull 12,000 lbs
  - Loaded Speed 13 MPH
  - Unloaded Speed, empty 36 MPH (using retarder curve)

TRAVEL TIME (MIN)	Loaded = 2.8	Unloaded = 1.2
FIXED TIMES	Loading= 0.9	Mnver. = 0.6

CYCLE TIME = 5.5 minutes

CYCLES/HR (50min/hr)/(5.5 min) = 9 cycles/hour

PRODUCTION (cycle/hr)x(cy/cycle) = 171 cy/hr

From Rental Rate Blue Book 4/93:

	<u>EQUIP</u>	<u>OPERATOR</u>	
627E P-P Hourly Cost	145.00	47.75	
Regional Factor	1.05	1.05	
Sub-total	152.25	50.14	
Equipment & Operating Cost			202.39 (\$/hr)

From Means Site Work Cost Data 1993:

Crew B-33D, 1-Equip Operator (med)	34.56
COST PER HOUR	236.95



# RECLAMATION COST ESTIMATE

GENEVA STEEL PLAN OF OPERATIONS  
UTU-71132

Spreading (General format and info. derived from DOGM)

ASSUME:

- CAT D8N dozer, 285hp, U-blade, track type
  - Information from CAT Performance Handbook, edition 23
  - Operator: Average, correction factor = 0.75
  - Material: loose stockpile, correction factor = 1.20
  - Slot dozing: factor = 1.20
  - Visibility: excellent, factor = 1.00
  - Job efficiency: 50 min/hr., factor = 0.83
  - Direct Drive Trans: factor = 0.80
  - Material Weight: 1600 lb/cy, factor = 0.70
  - Grade: -20%, factor = 1.4
  - Average push distance: 200 feet
- 

- Uncorrected maximum production: 500 cy/hr
- Factors from above: 0.75, 1.20, 1.20, 1.00, 0.83, 0.80, 0.70, 1.4
- Overall correction factor: 0.70
- ESTIMATED PRODUCTION(Max prod x correction factor): 350 cy/hr

From rental rate blue book 4/93:

	<u>Equip</u>	<u>Operator</u>	
Hourly Cost, D8N, U-blade	115.00	27.10	
Regional Factor	1.05	1.05	
Subtotals	120.75	28.46	
Subtotal Equipment/Operating Cost			149.21(\$/hr)

From Means Site Work Cost Data 1993:

Crew B-10B, 1-Equip Operator(med)	34.20
COST PER HOUR	183.41(\$/hr)



# RECLAMATION COST ESTIMATE

## GENEVA STEEL PLAN OF OPERATIONS UTU-71132

Recontouring (General format and info. derived from DOGM)

ASSUME:

- CAT D8N dozer, 285hp, U-blade, track type
  - Information from CAT Performance Handbook, edition 23
  - Operator: Average, correction factor = 0.75
  - Material: loose stockpile, correction factor = 1.20
  - Slot dozing: factor = 1.20
  - Visibility: excellent, factor = 1.00
  - Job efficiency: 50 min/hr., factor = 0.83
  - Direct Drive Trans: factor = 0.80
  - Material Weight: 2700 lb/cy, factor = 0.87
  - Grade: -20%, factor = 1.4
  - Average push distance: 200 feet
- 

- Uncorrected maximum production: 500 cy/hr
- Factors from above: 0.75, 1.20, 1.20, 1.00, 0.83, 0.80, 0.87, 1.4
- Overall correction factor: 0.87
- ESTIMATED PRODUCTION(Max prod x correction factor): 435 cy/hr

From rental rate blue book 4/93:

	<u>Equip</u>	<u>Operator</u>	
Hourly Cost, D8N, U-blade	115.00	27.10	
Regional Factor	1.05	1.05	
Subtotals	120.75	28.46	
Subtotal Equipment/Operating Cost			149.21(\$/hr)

From Means Site Work Cost Data 1993:

Crew B-10B, 1-Equip Operator(med)	34.20
COST PER HOUR	183.41(\$/hr)